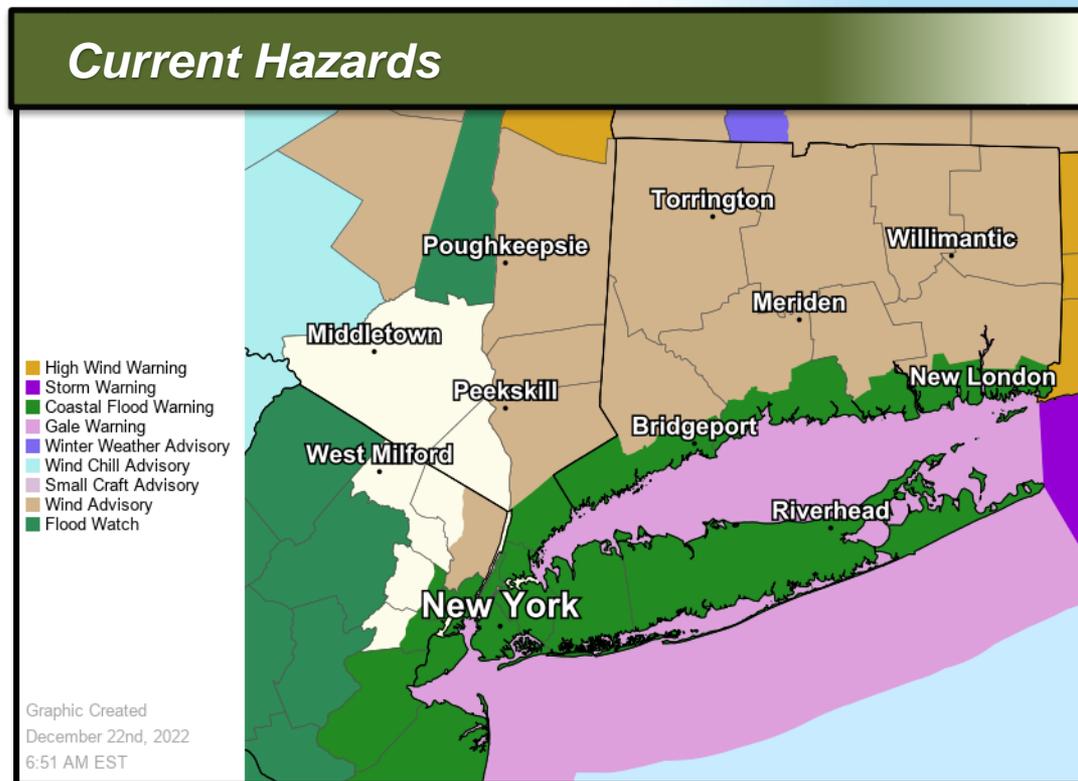


Major Late Week Winter Storm

Decision Support Briefing #5
As of: 6:00 AM Dec 22, 2022



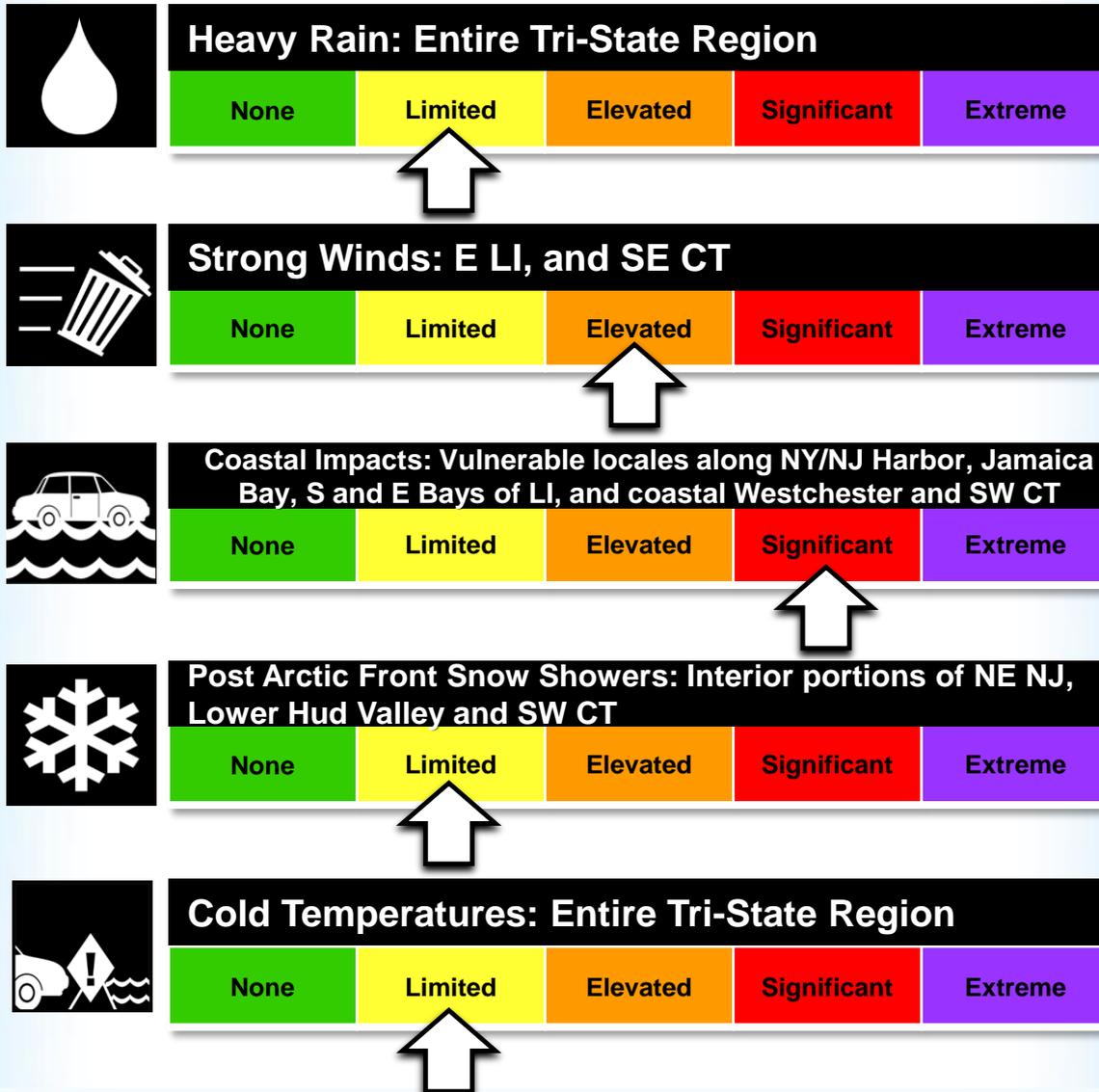
What Has Changed?

- **Coastal flood warnings are now in effect for all areas for Friday Morning's high tide cycle.**

Main Points

Hazard	Impacts	Location	Timing
Heavy Rain 1.5 to 2.5 inches, locally 3 inches. 	<ul style="list-style-type: none"> • Minor Flooding of Urban Areas, Low-lying Roads. • Rapid rises on small Streams and Creeks. 	Entire Tri-State Region	This evening through Friday Afternoon
Strong Winds 25 to 35 MPH with gusts to 45 to 55 mph 	<ul style="list-style-type: none"> • Strong winds will blow down scattered tree limbs and blow around unsecured objects. • Power outages possible. 	Entire Tri-State Region	Late tonight through Friday evening
Coastal Impacts 1 to 2 ft, locally 3 ft of flooding AGL 	<ul style="list-style-type: none"> • Widespread moderate to locally major flooding likely Fri am high tide for portions of the coast. • Areas of dune erosion and scattered overwashes along oceanfront 	Localized major threat along Jamaica Bay, W Great South Bay, south shore of CT and North fork of LI.	Friday AM high tides
Post Arctic Front Snow Showers 	<ul style="list-style-type: none"> • Spotty light snow accumulation possible behind cold front, particularly N&W of NYC, causing spotty flash freeze conditions possible. 	Interior portions of NE NJ, Lower Hud Valley and SW CT	Friday afternoon into early evening
Cold Temperatures Min windchills of -5 to 5 F. 	<ul style="list-style-type: none"> • Potential for localized flash freezing of bridges and elevated surfaces with snow showers Fri Eve. • Scattered areas of black ice 	Entire Tri-State Region	Late Friday aft into Fri Night

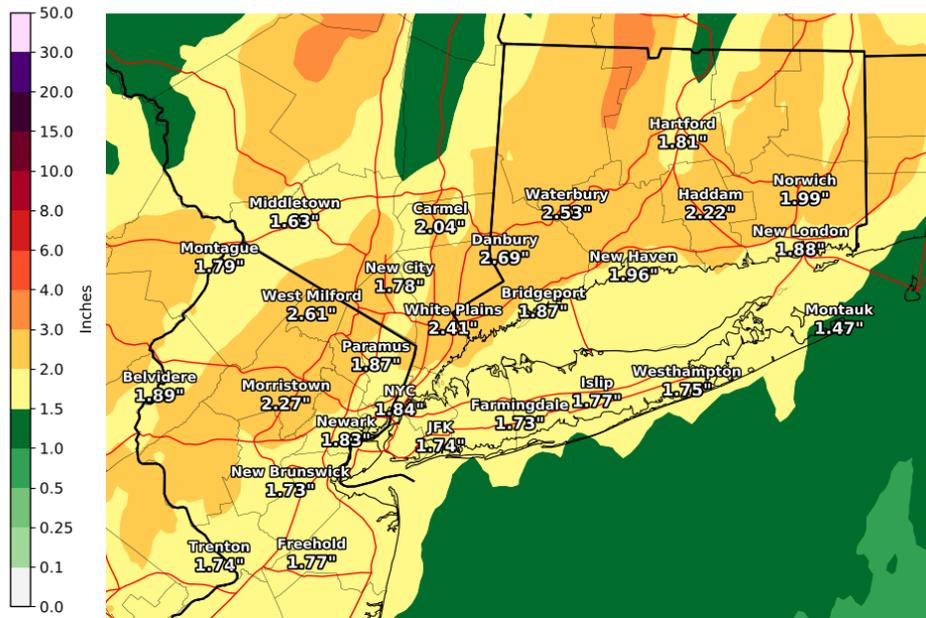
Summary of Greatest Impacts



Heavy Rain

Expected Rainfall/Liquid Equivalent - Official NWS Forecast

Valid: 12/22/2022 03:00 AM - 12/25/2022 03:00 PM EST



National Weather Service
New York NY
12/22/2022 03:30 AM EST

Follow Us:
weather.gov/nyc

Hazards:

- ✓ Total rainfall of 1.5" to 2.5" with locally 3 inches possible this afternoon into Friday Morning.
- ✓ Rainfall rates of 0.25 to 0.5"/hr

Impacts –

- ✓ Minor urban flooding of low-lying Roads, and Small Streams and Creeks
- ✓ Minor river flooding possible on fast responding creeks/ivers

Timing:

- ✓ Heaviest rain from 7pm tonight through 7am Friday.

Forecast Challenges:

Heavy rain may come to an end before the time of Fri AM high tide.

Strong/Damaging Winds

Hazards and Impacts:

Location – Strongest winds along the coast
Wind Advisory in Effect tonight thru Friday Night

- ✓ **Strong Winds:** SE/S winds of 25 to 35 mph with gusts 45 to 55 mph tonight into early Fri morning for the coast and 55-60 mph over the waters. Winds will shift to the SW/W late Friday morning into afternoon with the same speed.
- ✓ **There is potential for a brief period of damaging southerly winds of 40 mph with gusts to 60 mph with a narrow line of heavy showers and embedded thunderstorms ahead of the cold front Friday morning.**
- ✓ **Impacts:** Strong winds will blow down scattered tree limbs and blow around unsecured objects.

Timing:

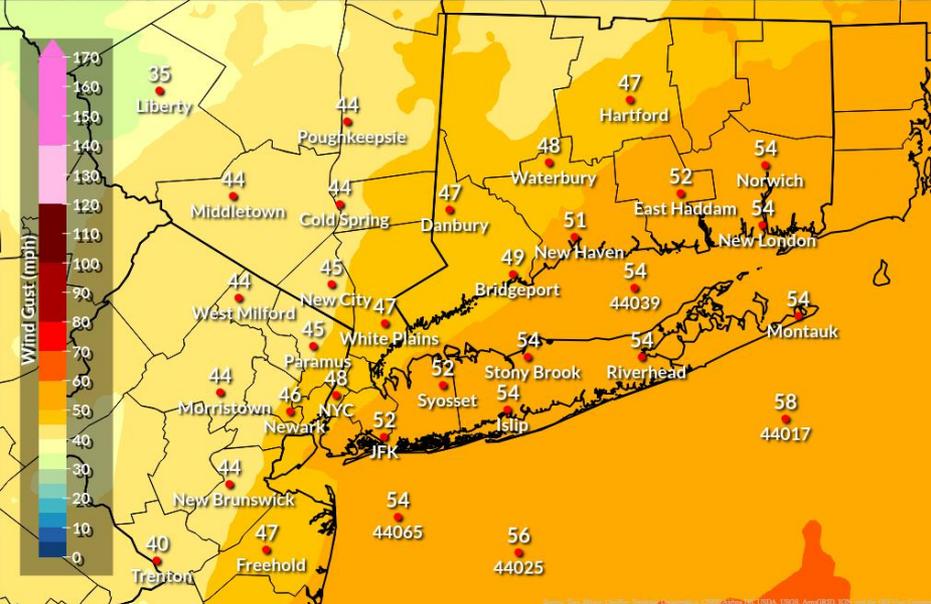
- ✓ Strongest winds from 10pm Thursday through 10pm Friday.

Friday's Maximum Wind Gusts

Valid Fri Dec 23 7:00AM through Sat Dec 24 7:00AM EST

Weather Forecast Office
New York, NY

Issued Dec 22, 2022 4:01 AM EST



weather.gov/nyc

Forecast Challenges:

The potential for a brief period of high winds Friday morning/early afternoon with a line of heavy showers ahead of the cold front will be alerted if needed using short fuse wind or severe thunderstorm warning products.

Post Frontal Snow Showers/Flash Freeze Potential



Hazards and Impacts:

Location – N&W of NYC highest probability, with low probability for NYC, LI, SE CT

- ✓ **Snow Accum:**
 - ✓ **Likely:** Dusting in spots
 - ✓ **Reasonable worst case:** 1-3” west of the Hudson River, 1” for rest of Lower Hud and S CT, Less than an inch for city/coast.
- ✓ **Snow Character:** Dry and powdery
- ✓ **Air temps:** Rapidly dropping below freezing in the mid afternoon to early evening. Road temps would likely lag by 1 to 2 hours.
- ✓ **Impacts:** Localized flash freeze threat.

Forecast Challenges:

The coverage and intensity forecast of any post arctic front snow showers will be refined over the next 24 hours. The flash freeze threat will be predicated on this activity.

Impacts:

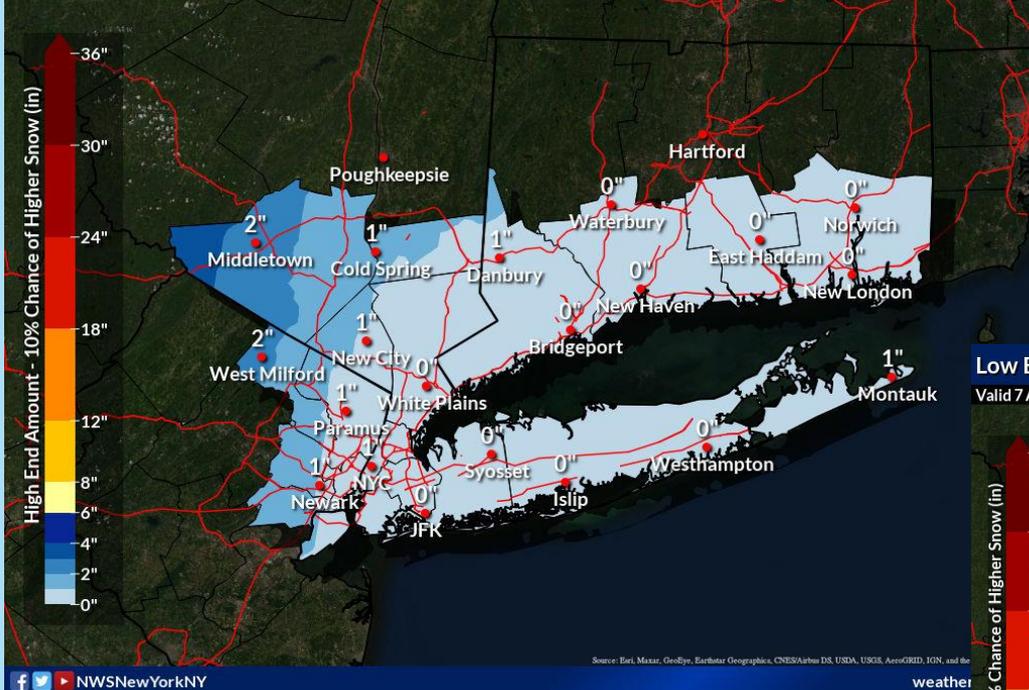
- ✓ Locally dangerous travel for Fri aft/eve commute

Timing:

- ✓ 2 to 6pm

Probabilistic Snowfall Forecast

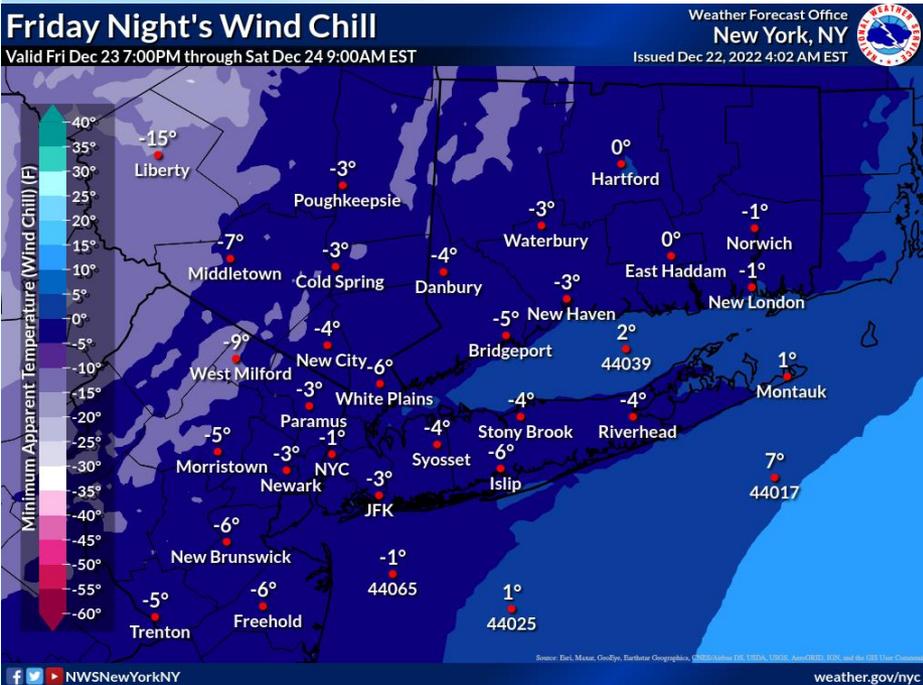
High End Amount - 1 in 10 Chance (10%) Of Higher Snowfall
Weather Forecast Office
New York, NY
Valid 7 AM Thu Dec 22, 2022 through 7 PM Fri Dec 23, 2022 EST
Issued Dec 22, 2022 5:22 AM EST



Low End Amount - 9 in 10 Chance (90%) Of Higher Snowfall
Weather Forecast Office
New York, NY
Valid 7 AM Thu Dec 22, 2022 through 7 PM Fri Dec 23, 2022 EST
Issued Dec 22, 2022 5:22 AM EST



Cold Temperatures / Flash Freeze Potential



Hazards:

- ✓ Temperatures plummet to 10 to 20F, with wind chills of -5 to 5F.
 - ✓ Friday Night:
 - ✓ Low Temps: Around 10 interior and around 15 coast.
 - ✓ Min wind chills: -10 to 0 F
 - ✓ Saturday:
 - ✓ High Temps: Low 20s interior and Mid 20s coast.
 - ✓ Wind chills: 0 to 10F
 - ✓ Saturday Night:
 - ✓ Low Temps: Low teens interior, upper teens coast
 - ✓ Wind chills: 0 to 10F
 - ✓ Sunday:
 - ✓ High Temps: Mid 20s interior and Upper 20s to 30 coast.
 - ✓ Wind chills: 10 to 20F

Impacts:

- ✓ Localized Flash freeze potential across Interior Fri aft/eve, causing dangerous travel conditions especially on bridges and elevated surfaces late Friday into Saturday morning.

Forecast Challenges:

- ✓ Depending on how quickly temperatures plummet Friday evening, there is potential for a flash freeze of slushy surfaces across the Interior especially on bridges and elevated surfaces.

Coastal Flooding

Marine / Coastal Hazards

Threat areas for locally major coastal flooding during Friday morning high tide (3 ft above ground level). Elsewhere threat is for moderate coastal flooding.



For the latest coastal flood forecasts (hydrographs and tables) and the tools to visualize the potential coastal impacts (zoomable potential inundation map, impact catalogs, climatology, etc.) in your area of concern please go to the [NWS New York, NY Coastal Flooding Page](#)

Coastal Flood Hazards and Impacts:

- ✓ **Widespread Moderate to locally Major coastal flooding potential (1 1/2 to 2/12 ft, locally 3 ft flooding above ground)** for S Nassau, S Queens, SW Suffolk as well as north Fork of LI and coastal CT.
- ✓ **Potential Impacts** – Numerous low-lying and shoreline roads will be closed in the area, with adjacent properties taking on water. Cars may be inundated if not moved to higher ground. Some flooding into areas that normally don't experience flooding.
- ✓ **Widespread moderate potential (around 2 ft above ground) coastal flooding** along NY/NJ harbor, Newark bay and tidally affected portions of Hackensack and Passaic Rivers, SE Suffolk, SE CT, and sound front communities of LI.

Shoreline Hazards and Impacts:

- ✓ 10-15' breaking waves along the oceanfront, resulting in widespread dune erosion and scattered overwashes.
- ✓ 3 to 5' along coastal CT and Orient Point shoreline resulting in beach erosion, localized overwashes, and possible damage to shoreline structures.

Timing:

- ✓ Around and near the times of high tide Fri AM

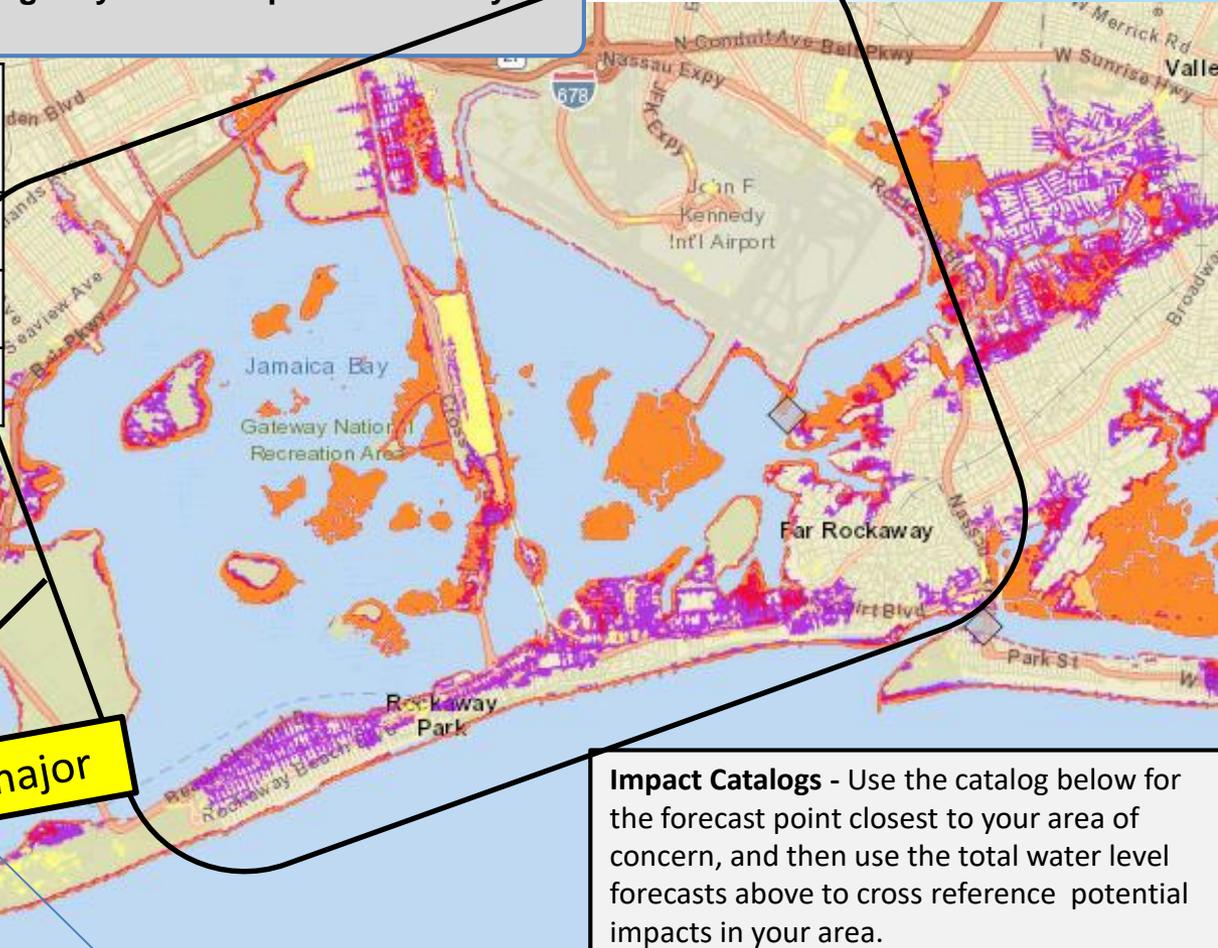
Forecast Challenge: The extent of major coastal flooding (3 ft above ground) will depend on strong southeast winds continuing right through the time of high tide Fri AM. Low prob for minor flooding with Thu eve high tide. Potential for residual minor to moderate coastal flooding in the great South Bay with Friday Evening High Tide.

Coastal Flooding – Potential Flood Impact Areas

The map below shows the potential extent of flood impact (water above ground) during the Friday morning high tides. Flooding may be as deep as 2 to locally 3 ft in spots.

Forecast Location (High tide Time)	Peak Water Level (ft) (MHHW)	Departure at high tide (ft)	Flood Impact
Jamaica Bay (8am)	2.2-2.7	+(1.9-2.3)	Moderate
Rockaway Inlet (7am)	2.7-3.2	+(2.0-2.5)	Moderate
East Rockaway (7am)	2.3-2.8	+(2.0-2.5)	Mod-Maj

Map Legend
Expected Areas of Flood Impact
Likely Areas of Flood Impact
Possible Area of Flood Impact
Low-lying areas – Could flood hydrostatically



Primary concern area for localized major

Impact Catalogs - Use the catalog below for the forecast point closest to your area of concern, and then use the total water level forecasts above to cross reference potential impacts in your area.

- [Jamaica Bay at Inwood](#)
- [East Rockaway](#)
- [Rockaway Inlet](#)

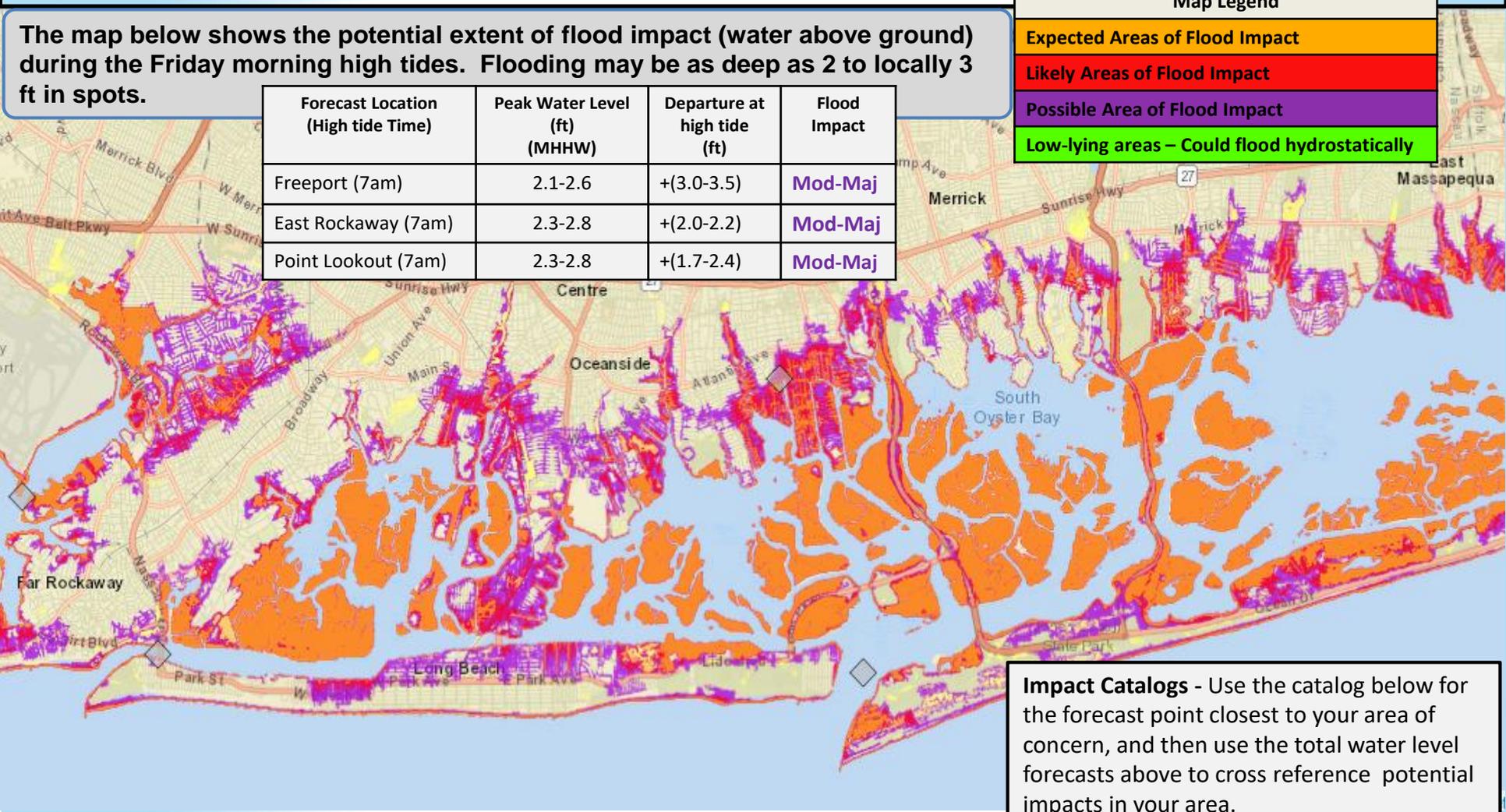
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Freeport (7am)	2.1-2.6	+(3.0-3.5)	Mod-Maj
East Rockaway (7am)	2.3-2.8	+(2.0-2.2)	Mod-Maj
Point Lookout (7am)	2.3-2.8	+(1.7-2.4)	Mod-Maj

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Likely Areas of Flood Impact
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Low-lying areas – Could flood hydrostatically



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- [Freeport](#)
- [East Rockaway](#)
- [Point Lookout](#)

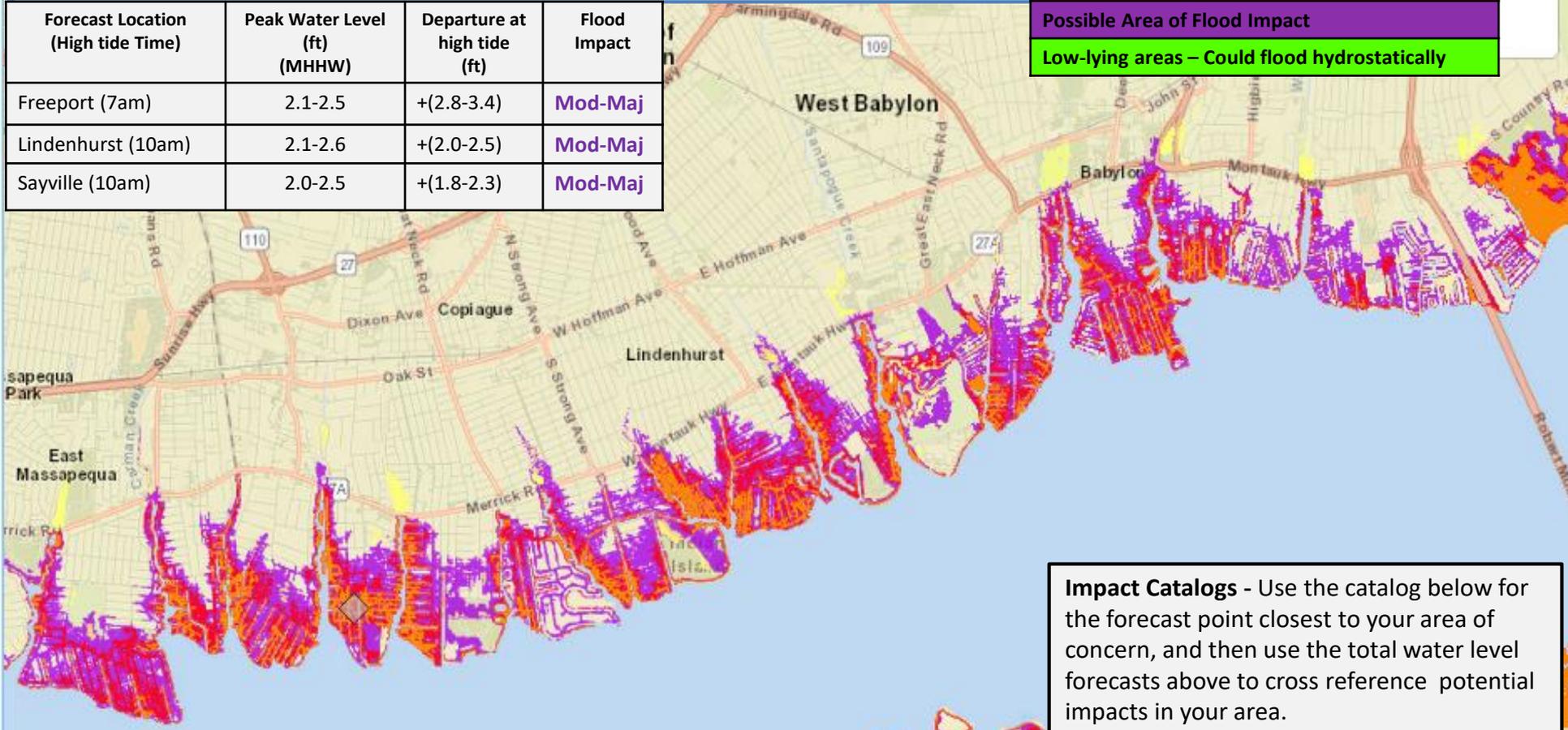
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Low-lying areas – Could flood hydrostatically	

Forecast Location (High tide Time)	Peak Water Level (ft) (MHHW)	Departure at high tide (ft)	Flood Impact
Freeport (7am)	2.1-2.5	+(2.8-3.4)	Mod-Maj
Lindenhurst (10am)	2.1-2.6	+(2.0-2.5)	Mod-Maj
Sayville (10am)	2.0-2.5	+(1.8-2.3)	Mod-Maj



Impact Catalogs - Use the catalog below for the forecast point closest to your area of concern, and then use the total water level forecasts above to cross reference potential impacts in your area.

- [Freeport](#)
- [Lindenhurst](#)
- [Watch Hill](#)

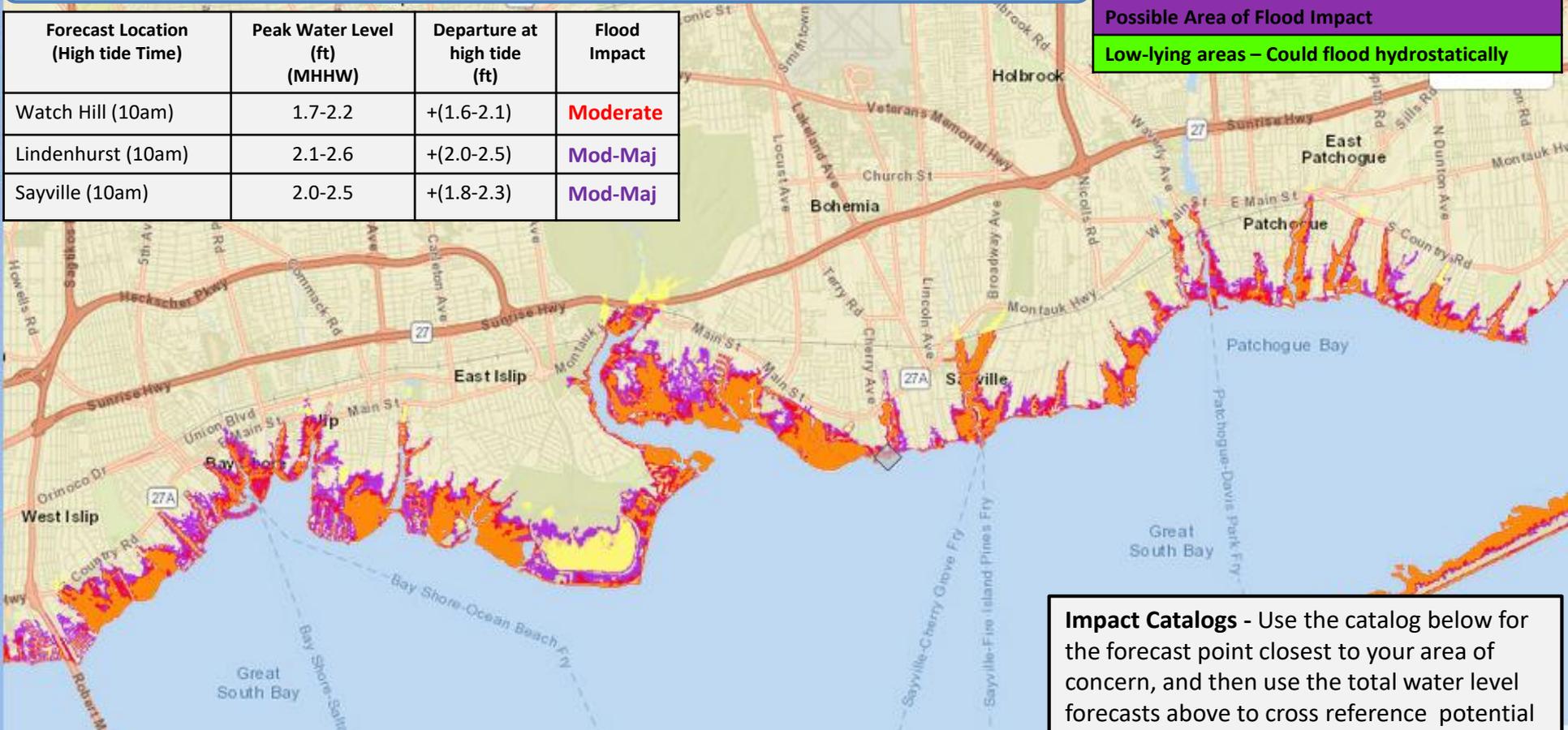
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Low-lying areas – Could flood hydrostatically

Forecast Location (High tide Time)	Peak Water Level (ft) (MHHW)	Departure at high tide (ft)	Flood Impact
Watch Hill (10am)	1.7-2.2	+(1.6-2.1)	Moderate
Lindenhurst (10am)	2.1-2.6	+(2.0-2.5)	Mod-Maj
Sayville (10am)	2.0-2.5	+(1.8-2.3)	Mod-Maj



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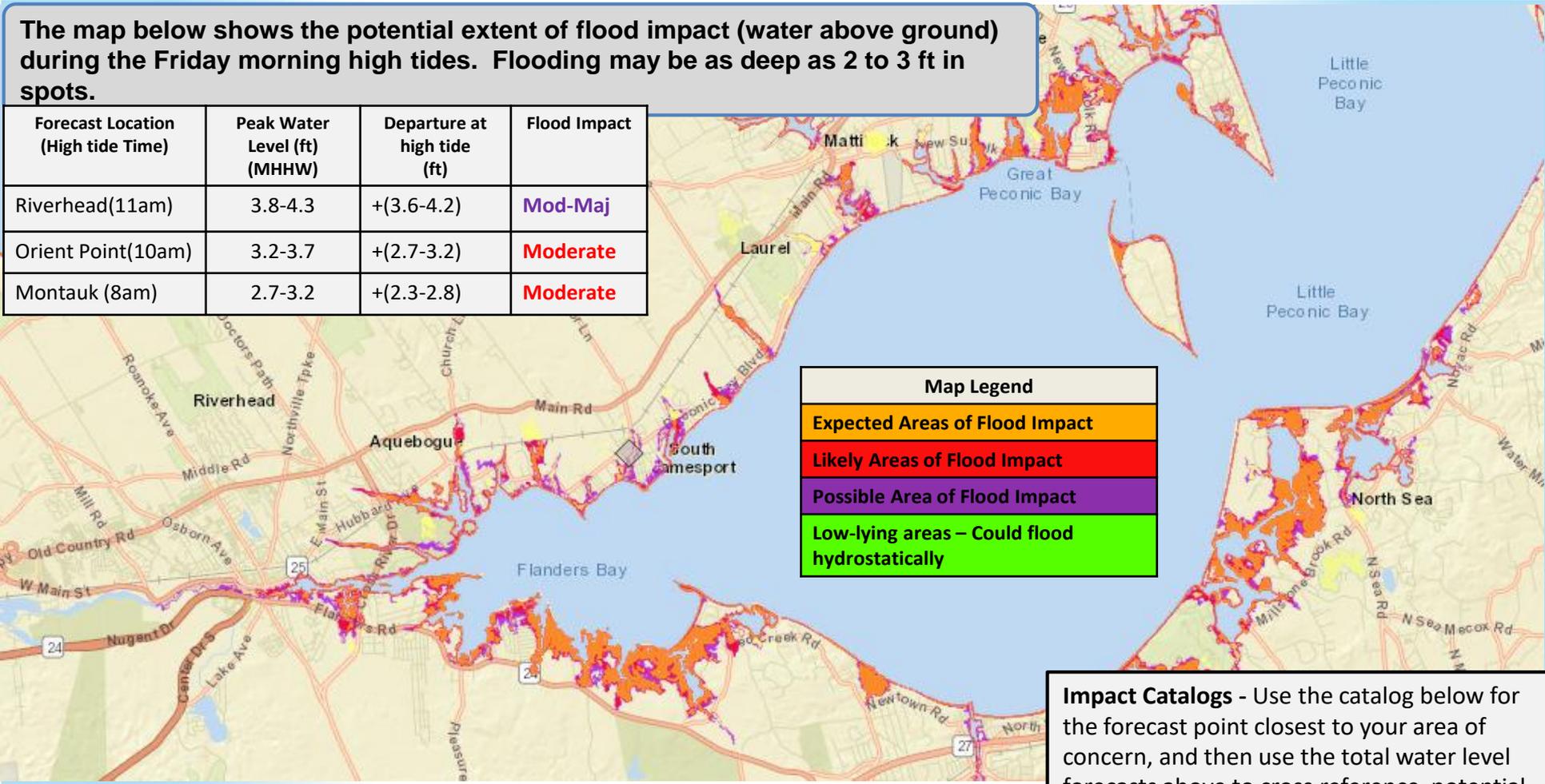
- [Lindenhurst](#)
- [Watch Hill](#)

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Forecast Location (High tide Time)	Peak Water Level (ft) (MHHW)	Departure at high tide (ft)	Flood Impact
Riverhead(11am)	3.8-4.3	+(3.6-4.2)	Mod-Maj
Orient Point(10am)	3.2-3.7	+(2.7-3.2)	Moderate
Montauk (8am)	2.7-3.2	+(2.3-2.8)	Moderate



Map Legend
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Possible Area of Flood Impact
Low-lying areas – Could flood hydrostatically

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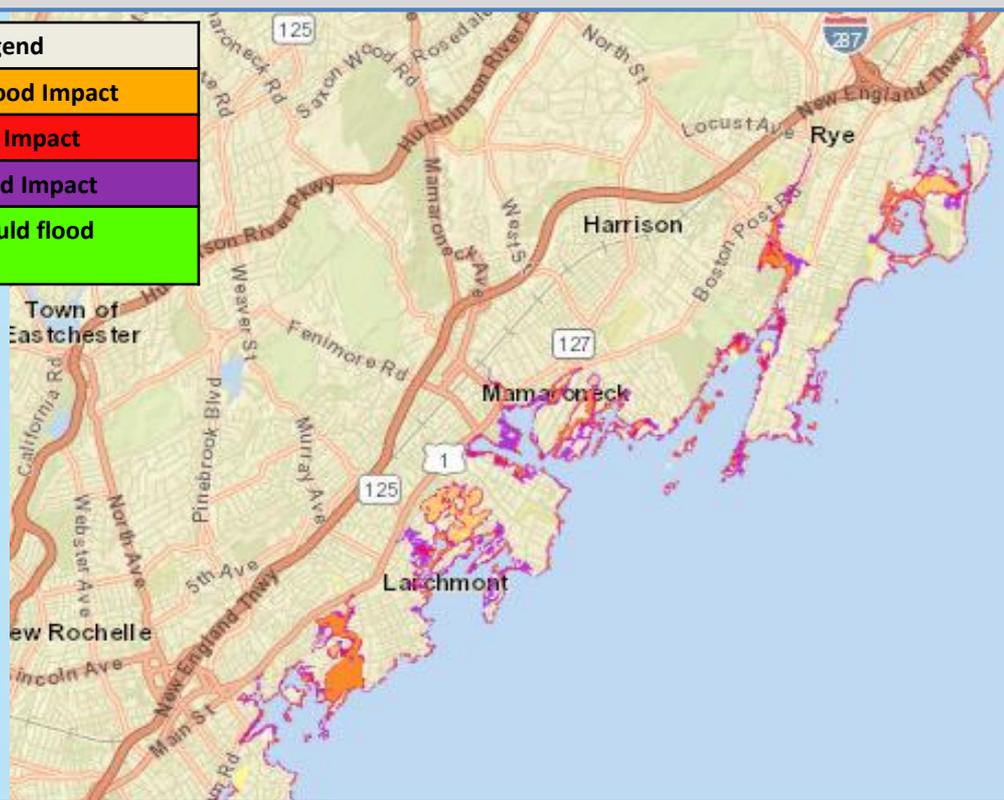
- [Riverhead](#)
- [Orient Point](#)
- [Montauk](#)

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Low-lying areas – Could flood hydrostatically



Forecast Location (High tide Time)	Peak Water Level (ft) (MHHW)	Departure at high tide (ft)	Flood Impact
Stamford (11am)	3.6-4.2	+(2.5-3.1)	Moderate
Kings Point (11am)	3.6-4.1	+(2.5-3.1)	Moderate

Wave action of 1 to 3 ft along shoreline may locally enhance coastal impacts.

Impact Catalogs - Use the catalog below for the forecast point closest to your area of concern, and then use the total water level forecasts above to cross reference potential impacts in your area.

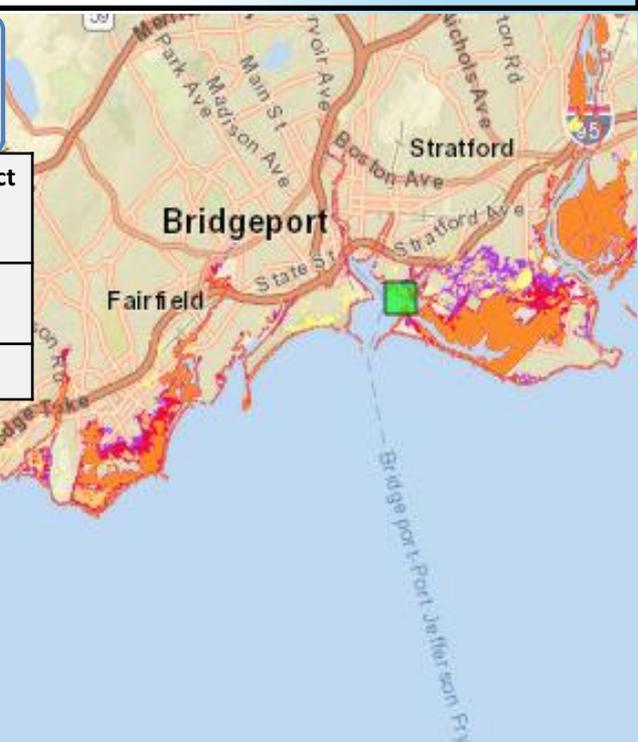
- [Stamford](#)
- [King Point](#)

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Possible Area of Flood Impact				
Low-lying areas – Could flood hydrostatically				
	Stamford (11am)	3.6-4.2	+(2.5-3.1)	Moderate
	Bridgeport (11am)	3.4-3.9	+(2.7-3.2)	Mod-Maj



Wave action of 2 to 4 ft breaking along the shoreline will present a localized major flood threat.

Impact Catalogs - Use the catalog below for the forecast point closest to your area of concern, and then use the total water level forecasts above to cross reference potential impacts in your area.

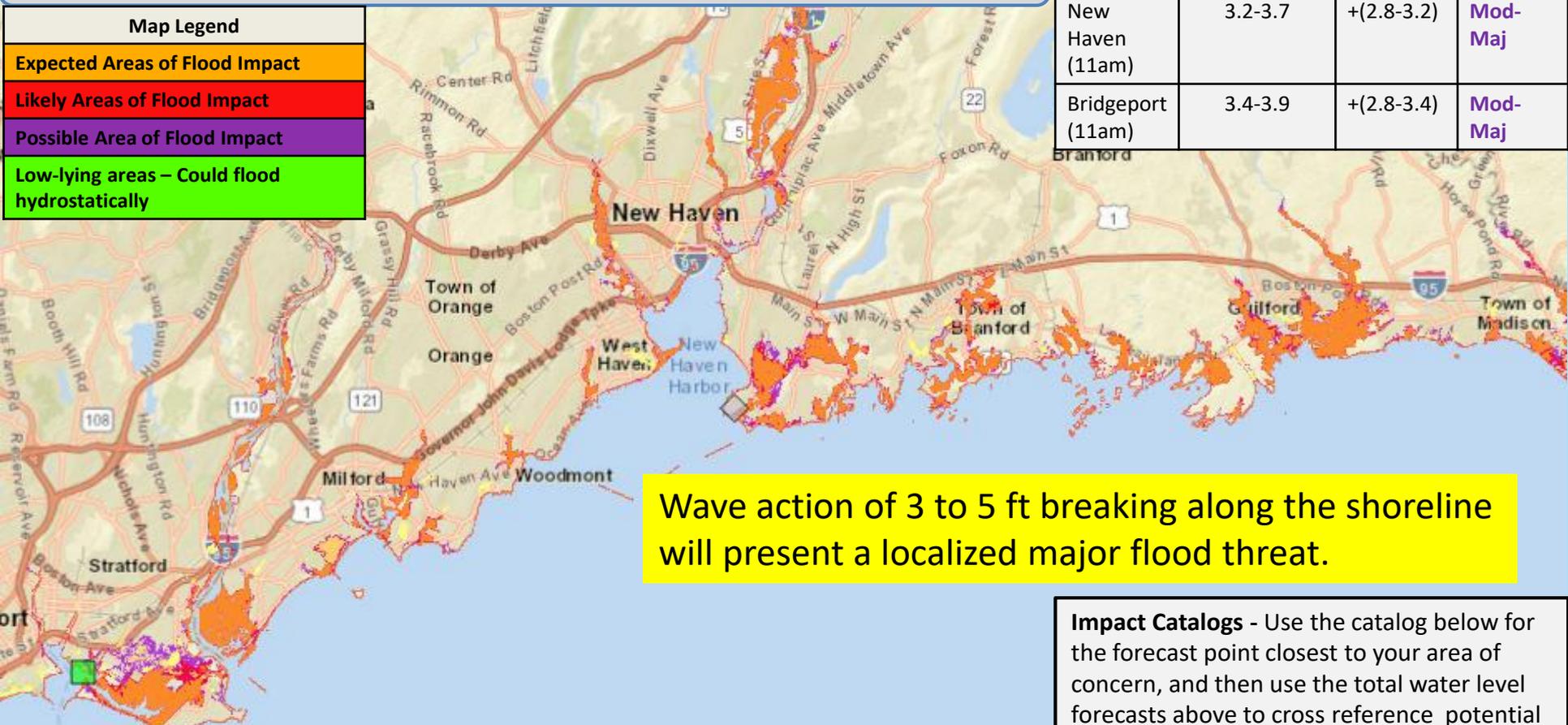
- [Stamford](#)
- [Bridgeport](#)

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Possible Area of Flood Impact
Low-lying areas – Could flood hydrostatically



Forecast Location (High tide Time)	Peak Water Level (ft) (MHHW)	Departure at high tide (ft)	Flood Impact
New Haven (11am)	3.2-3.7	+(2.8-3.2)	Mod-Maj
Bridgeport (11am)	3.4-3.9	+(2.8-3.4)	Mod-Maj

Wave action of 3 to 5 ft breaking along the shoreline will present a localized major flood threat.

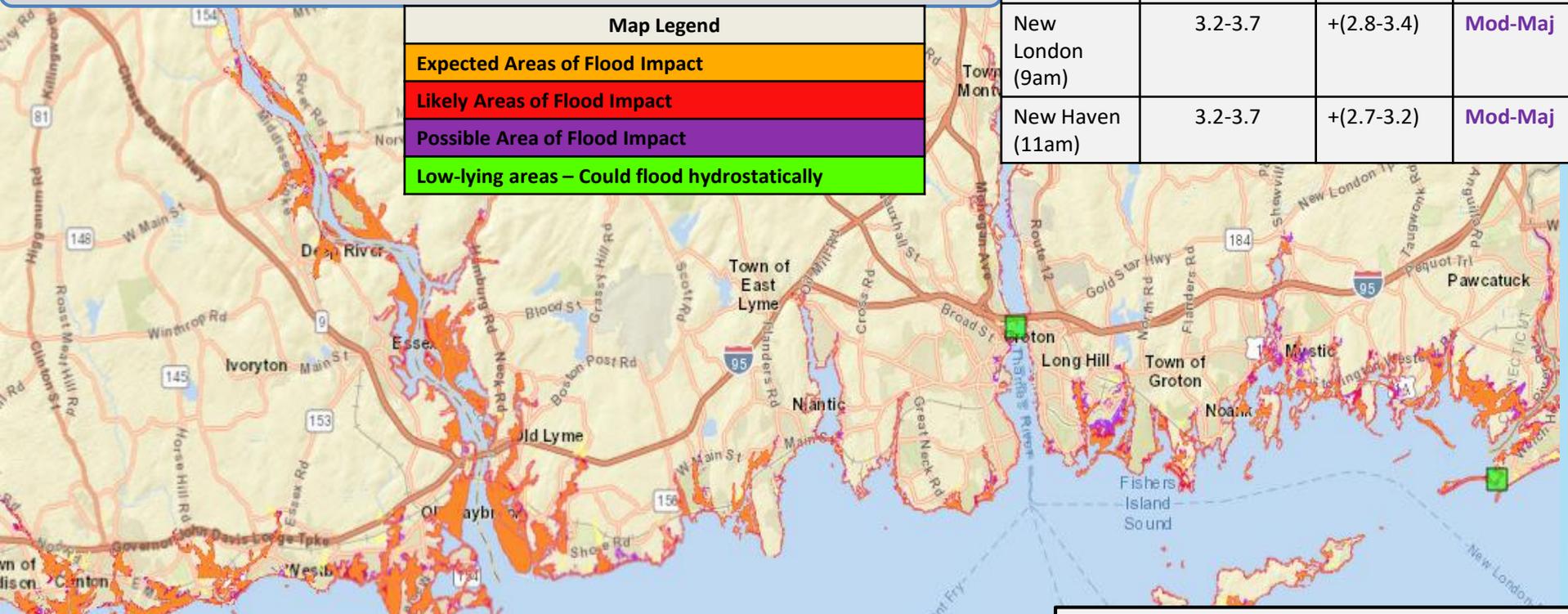
Impact Catalogs - Use the catalog below for the forecast point closest to your area of concern, and then use the total water level forecasts above to cross reference potential impacts in your area.

- [New Haven](#)
- [Bridgeport](#)

For the latest coastal flood forecasts (hydrographs and tables) and the tools to visualize the potential coastal impacts (zoomable potential flood impact map, impact catalogs, climatology, etc.) in your area of concern please go to the [NWS New York, NY Coastal Flooding Page](#)

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Wave action of 3 to 5 ft breaking along the shoreline will present a localized major flood threat.

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- [New Haven](#)
- [New London](#)

For the latest coastal flood forecasts (hydrographs and tables) and the tools to visualize the potential coastal impacts (zoomable potential flood impact map, impact catalogs, climatology, etc.) in your area of concern please go to the [NWS New York, NY Coastal Flooding Page](#)

Event Summary

A potent low pressure system will affect the area through Saturday morning.

- ✓ Heavy rainfall of 1.5" to 2.5", with locally 3" for the Tri State may lead to local urban and small stream flooding tonight into Friday afternoon.
- ✓ Southeasterly to southerly winds 25-35 mph with gusts 45-55 mph are likely over coastal areas and the waters tonight into Friday morning. A brief period of S 40G60mph just ahead of cold front. Winds then shift to the SW/W during the afternoon on Friday with similar speeds through Friday Evening.
- ✓ Potential for local flash freeze N&W of NYC Fri aft/eve rush. Areas of Black Ice and Cold temperatures Fri Eve/Night, with sub freezing temperatures continuing through Monday.
- ✓ Gale conditions are expected on all waters late tonight through Friday night.
- ✓ Locally major coastal flooding potential for south facing communities of southern Nassau, SW Suffolk, S Queens, south shore of north fork of LI, including Riverhead, and coastal CT for Friday am high tide cycles. Elsewhere widespread moderate coastal flooding conditions.
- ✓ Widespread dune erosion and scattered overwashes from breaking surf potentially peaking at 10-15 ft during the Fri into Fri Night period along the oceanfront.

